

AMENDMENTS TO THE SPECIFICATION

Please replace the three paragraphs from page 3, line 19 to page 4, line 11 of the specification with the following:

--Another embodiment of the invention relates to a circuit arrangement in a variable speed automotive electric motor controller. The circuit arrangement includes a controller logic circuit for operating a controller logic finite state machine, in which the state machine sets the voltage supplied to an electric motor. It can also include a closed loop feedback for generating a signal indicating the voltage across the electric motor, which can then be used for comparison to the voltage set by the state machine ~~input to the state machine for monitoring thereof.~~--

--In another embodiment, the invention includes a system incorporating at least the above-described automotive electric motor linear speed control. In another embodiment, the invention includes a system for controlling the speed of an automotive electric motor, in which the voltage across the electric motor determines the speed of the electric motor. This system can include a digital to analog converter means for converting a digital signal to analog voltage for setting voltage across the electric motor, a microprocessor and associated digital memory for generating the digital signal, where the microprocessor is configured to instantiate and operate a digital state machine for converting the duty cycle of an input signal to the microprocessor and associated digital memory for setting the voltage supplied to the electric motor ~~generated by an associated closed loop feedback means~~, and a closed loop feedback loop means for monitoring the voltage across the motor and generating a signal for input to the microprocessor. The invention also relates to an automobile including the above-described system. In a preferred embodiment, the system includes a temperature-control system.--

--In one preferred embodiment, the invention relates to a linear speed control for an automotive electric motor that includes a digital state machine for converting the duty cycle of an input signal generated by an associated closed loop feedback, an over-current sense circuit for monitoring the current across said electric motor, an over/under voltage sense circuit for monitoring a supply voltage to the electric controller, a digital to analog converter for converting an 8-bit digital signal to analog voltage for setting voltage across said electric motor, and a closed loop feedback loop for monitoring the voltage across said motor and generating a feedback signal for adjusting the voltage supplied to the motor ~~input to said digital state machine.~~--